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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,306	02/17/2006	Jean Beguinot	Q88031	3704
23373	7590	04/10/2008	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			YEE, DEBORAH	
ART UNIT	PAPER NUMBER	1793		
MAIL DATE	DELIVERY MODE	04/10/2008 PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/535,306	BEGUINOT ET AL.
	Examiner Deborah Yee	Art Unit 1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-11 is/are pending in the application.
 - 4a) Of the above claim(s) 6-11 is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-5 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08) _____
Paper No(s)/Mail Date 5/18/05
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) Notice of Informal Patent Application
- 6) Other: ____

DETAILED ACTION

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1 to 5, drawn to steel component alloy composition.

Group II, claim(s) 6 to 11, drawn to method of making steel component comprising the steps of austenitizing, cooling to $\leq 200C$, in such a manner that, at the core of the component, the rate of cooling between 800C and 500C is \geq critical bainitic velocity, with optional tempering.

2. The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The common technique feature that groups I and II share is the composition of claim 1. This composition does not provide a contribution over the prior art as evident by Japanese patent 2001-220648, Japanese patent 2001-181781, Japanese patent 06-17188 or Japanese patent 3-31443. Thus the two groups lack unity of invention. See MPEP 1850.

3. During a telephone conversation with Mr. Richard Turner on March 13, 2008 a provisional election was made traverse traverse to prosecute the invention of group I, claims 1 to 5. Affirmation of this election must be made by applicant in replying to this Office action. Claims 6 to 11 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Specification and Claim Objections

5. The disclosure and claims are objected to because of the following informalities:
In the equations, the decimal point should be represented with a period rather than comma, e.g. $I = \text{Min} (N ; N - 0,29(Ti-5))$

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. The claimed equations are indefinite. Note equation $I = \text{Min} (N; N-0.29(Ti-5))$ and $I^* = \text{Max} (0; I) K = \text{Min} (I^*; J^*)$ and $J^* = \text{Max} (0 ; J)$ and $J = \min \{ N ; 0.5(N-0.52 A_1 + \sqrt{(N-0.52)^2 + 283}) \}$. It is unclear what min and max indicates and why equations, each have two values.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1 to 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese patent 06-17188 (hereinafter JP'188) or Japanese patent 3-31443 (hereinafter JP'443), which were cited in Applicants' IDS dated May 18, 2005.

11. Claims 1 to 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese patent 2001-220648 (hereinafter JP'648) or Japanese patent 2001-181781 (hereinafter JP'781).

12. Each patent teaches specific examples in the tables which meet the claimed composition. Although Al and/or N are not taught, such would not be a patentable difference, since $\leq 0.9\%$ Al and $\leq 0.025\%$ N as recited by claim 1 have a lower limit of zero and therefore need not be present.

13. Moreover, when calculated, claimed equation (1) would be met since boron is present and Al and N need not be present such that I and J value can be zero and $B > K$. Also when calculated, examples satisfy equation (2) and/or equation (3)

14. In regard to microstructure, prior art teaches martensite and/or bainite with retained austenite in a vol.% range that overlaps and suggest claimed retained austenite range of 3 to 20 vol.%.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-272-1253. The examiner can normally be reached on monday-friday 6:00 am-2:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Deborah Yee/
Primary Examiner
Art Unit 1793

/DY/